VERIFICATION OF CRITICAL DEMENSIONS OF CONCRETE SLUMP TEST MOLD AASHTO T 119

A. PURPOSE

The methods described below are intended to instruct the appropriate personnel in the measurement of the critical dimensions of the mold used to test the slump of Portland cement concrete.

B. APPARATUS

1. 1 ft. x 1 ft. x 0.5 in. (300 mm x 300 mm x 12.5 mm) glass plate.
2. 24 inch (1 m) long ruler or tape accurate to .0625 inch (1 mm).
3. Calibrated calipers readable to 0.001 inch(0.025 mm).

C. PROCEDURE

1. Use the calipers to measure the thickness of the wall of the mold at four (4) different spots and average them.
2. Use the ruler to measure the bottom and top openings.
3. Place the bottom of the mold on a flat level surface.
4. Place the glass on top of the mold.
5. Use the ruler to measure down from the bottom of the glass to the flat level surface.
6. The measurements must be taken on each side of the glass plate and must read 11.9 – 12.1 in. (297 – 303 mm).
7. Check inside of mold for dents, protruding rivets or concrete adhering to the walls of the mold.
8. Check the handles and foot pieces for stability and soundness.
9. Use ruler to measure the tamping rods length to the nearest 0.0625 inch (1 mm).
10. Use calipers to measure tamping rod diameter.
11. Use calipers to measure tips of tamping rod for their respective diameters.

D. TOLERANCE

All equipment shall meet the tolerances specified in AASHTO T 119.

EQUIPMENT VERIFICATION RECORD

Verified By: _____ Date: _____

Equipment: Slump Cone Location (Lab): _____

Identification No.: _____ Verification Frequency: 12 months

Previous Verification Date: _____ Next Due Date: _____

Verification Equipment Used: 1' X 1' X 0.5" (300 mm x 300 mm x 12.5 mm) glass plate; ruler or tape (2 ft. [1 m] min., readable to 1/16 in.[1 mm]); calipers (readable to 0.001 in. [.025 mm])

Verification Procedure: (In-house) OMR-CVP-24 / T 119

T 119-82 (1990) 2.1

Minimum Wall Thickness of Mold 0.045 in. (1.14 mm)
Measured Wall Thickness of Mold _____ in./mm
Difference _____ in./mm

Diameter on Top of Mold (3.875 – 4.125 in. [98.43 – 104.78 mm]) _____ in./mm
Diameter of Bottom of Mold (7.875 – 8.125 in. [200.03 – 206.38]) _____ in./mm

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Height of Mold (11.875 – 12.125 in.).
North _____in./mm East _____in./mm
South _____in./mm West _____in./mm
Is the mold 12 in. (305 mm) high? _____
Are the top and bottom of the mold parallel to each other? _____
Is inside of mold clean and smooth? _____
Are the handles and foot pieces of the mold firm and sound? _____

T 119 2.2

Specified Diameter of Rod 0.625 in. (16 mm)
Measured Diameter of Rod _____ in./mm
Difference _____ in./mm

Specified Diameter of Rod Tips 0.625 in. (16 mm)
Measured Diameter of Rod Tips (1) _____ in./mm
Measured Diameter of Rod Tips (2) _____ in./mm
Difference (1) _____ in./mm
Difference (2) _____ in./mm

Specified length of rod 24 in. (610 mm)
Measured length of rod _____ in./mm
Difference _____ in./mm